

not be found a *co-efficient* in the most considerable Operations of Nature? As in those of *Heat*, and *Light*, and consequently of *Rarefaction* and *Condensation*, *Hardness*, and *Fluidness*, *Perspicuity* and *Opacousness*, *Refractions* and *Colours*, &c. Nay, I know not whether there may be many things done in Nature, in which this may not (be said to) have a Finger? This I have in some other passages of this Treatise further enquired into and shewn, that as well *Light* as *Heat* may be caused by *corrosion*, which is applicable to *congruity*, and consequently all the rest will be but *subsequents*: In the mean time I would not willingly be guilty of that *Error*, which the thrice Noble and Learned *Verulam* justly takes notice of, as such, and calls *Philosophie Genus Empiricum*, quod in paucorum Experimentorum Angustis & Obscuritate fundatum est. For I neither conclude from one single Experiment, nor are the Experiments I make use of, all made upon one Subject: Nor wrest I any Experiment to make it *quadrare* with any preconceiv'd Notion. But on the contrary, I endeavour to be conversant in divers kinds of Experiments, and all and every one of those Trials, I make the Standards or Touchstones, by which I try all my former Notions, whether they hold out in weight, and measure, and touch, &c. For as that Body is no other then a Counterfeit Gold, which wants any one of the Properties of Gold, (such as are the Malleableness, Weight, Colour, Fixtness in the Fire, Indissolubleness in *Aqua fortis*, and the like) though it has all the other; so will all those Notions be found to be false and deceitful, that will not undergo all the Trials and Tests made of them by Experiments. And therefore such as will not come up to the desired *Apex* of Perfection, I rather wholly reject and take new, then by piecing and patching, endeavour to retain the old, as knowing such things at best to be but lame and imperfect. And this course I learned from Nature; whom we find neglectful of the old Body, and suffering its Decaies and Infirmities to remain without repair, and altogether solicitous and careful of perpetuating the *Species* by new *Individuals*. And it is certainly the most likely way to erect a glorious Structure and Temple to Nature, such as she will be found (by any zealous *Vetary*) to reside in; to begin to build a new upon a sure Foundation of Experiments.

But to digress no further from the consideration of the *Phænomena*, more immediately explicable by this Experiment, we shall proceed to shew, That, as to the rising of Water in a *Filtre*, the reason of it will be manifest to him, that does take notice, that a *Filtre* is constituted of a great number of small long solid bodies, which lie so close together, that the Air in its getting in between them, doth lose of its pressure that it has against the *Fluid* without them, by which means the Water or Liquor not finding so strong a resistance between them as is able to counter-balance the pressure on its superficies without, is raised upward, till it meet with a pressure of the Air which is able to hinder it. And as to the Rising of Oyl, melted Tallow, Spirit of Wine, &c. in the Week of a Candle or Lamp, it is evident, that it differs in nothing from the former, save only in this, that in a *Filtre* the Liquor descends and runs away by another part; and in the Week the Liquor is dispersed and carried away by the

Flame;

Flame; something there is ascribable to the Heat, the more volatil and spirituous parts of those comb being made lighter then the Air, it may be protr more ponderous fluid body in the Form of Vapor ascribed to the ascension of but a very little, and n ly which ascends without the Week. As for the R Bread, Cotton, &c. above the superficies of the ful has been said about the *Filtre* (if considered) reason, considering that all these bodies abound pores.

From this same Principle also (*viz. the unequa gainst the unequal superficies of the water*) proceed cession or incursion of any floating body against taining Vessel, or the *appropinquation* of two floati Corks, Sticks, Straws, &c. one towards another. a Glas-jar, such as A B in the seventh Figure, and fil top with water, throw into it a small round piece plunge it all over in water, that it be wet, so as th up by the sides of it, then placing it any where upon an inch, or one inch and a quarter from any side, and by degrees to make *perpendicularly* toward the no and the nearer it approaches, the faster to be n which *Phænomenon* will be found no other then th greater pressure against the middle of the *superfici* those parts that approach nearer, and are *contiguo* that the pressure is greater, may (as I shewed bef of the third Figure) be evinced from the flattening middle, which arises from the gravity of the unde shewed before, if there were no gravity in the unde equal to that of the upper, the terminating Surfa and since it is the additional pressure of the gravit it so flat, it follows, that the pressure upon the midd towards the sides. Hence the Ball having a stronge side of it which respects the middle of the *superfici* which respects the *approximate* side, must necessari part, from whence it finds least resistance, and so be stance decreases. Hence the more the water is of its way it is passing above the middle, the fast therefore you will find it to move faster in E then in C. Neither could I find the floating substance to til it were placed upon some part of the *superfici* vated above the height of the middle part. Now true cause, you may try with a blown Bladder, and upon a very smooth side of some pliable body, a For if the Ball be placed under a part of the Blad side of the middle of its pressure, and you pres Bladder, you shall find the Ball moved from the mid